Transgender Health
Volume 7, Number 5, 2022
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DOI: 10.1089/trgh.2020.0181

SHORT REPORT

Assessment of Knowledge, Comfort, and Skills Working with Transgender Clients of Saskatchewan Family Physicians, Family Medicine Residents, and Nurse Practitioners

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Abstract

People who are transgender and gender diverse (TGD) report suboptimal care from health care providers. A cross-sectional survey was codesigned with community partners to assess the knowledge, comfort, and skills of family physicians, family medicine residents, and nurse practitioners working with TGD patients in Saskatchewan. It was administered from August to October 2019. Of 188 participants, 30% and 96% were comfortable providing transition-related and non-transition-related medical care to patients who are TGD, respectively. Interest in further training in providing transition-related medical care and cultural safety was high. No significant differences between provider groups were observed. Based on our results, provincial training initiatives will be undertaken.

Keywords: family physician; medical education; nurse practitioner; primary care; transgender

Introduction

Primary care providers, especially family physicians (FPs) and nurse practitioners (NPs), must endeavor to have appropriate knowledge and skills to provide care to a broad range of patient populations. A growing body of literature highlights that many physicians, as well as other health care providers and students, lack comfort and knowledge regarding specific health care needs and culturally safe care for people who are two-spirit, lesbian, gay, bisexual, transgender, queer plus (2SLGBTQ+). This is especially the case for people who are transgender and gender diverse (TGD), who make up 0.5% of the adult population.[1–15]

Little has been done to implement additional culturally appropriate teaching during health care training. Many studies have identified that curricula educating health care providers lack adequate teaching about TGD health.[13,16] Although the sample sizes are small, studies continue to identify gaps in knowledge and confidence of health care providers regarding TGD health, and that transphobia can influence physicians' knowledge.[3,6,8–14,17,18] Multiple studies have shown that educational sessions regarding culturally safe medical care increase learners' comfort with caring for patients who are TGD.[16,17,19–21] The majority of studies have been conducted in the United States. Three small interview-based studies conducted within Canada identified gaps in the knowledge of medical students, residents (in family medicine, endocrinology, urology, and psychiatry), and practicing physicians in Manitoba and Ontario.[10,14,22] Two studies assessed practicing physicians' comfort and knowledge with TGD patients, but did not determine if implementing an educational intervention was effective in addressing the knowledge

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gap.[7,23] Overall, the literature agrees that a knowledge gap exists, and more must be done to rectify this, both in residency training and for practicing clinicians.

Comfort and knowledge are known to impact the likelihood of providers delivering care according to clinical practice guidelines,[24] such as the Canadian Sherbourne guidelines for gender-affirming primary care with trans and nonbinary patients.[25] Thus, we investigated if FPs, NPs, and family medicine residents (FMRs) in Saskatchewan lack comfort (i.e., what is felt, such as a lack of self-efficacy and motivation[24]) and knowledge (i.e., what is known) about providing medical care to TGD patients, specifically trans-related care (including hormone therapy and trans-related surgical referrals). We also queried if a subset of these health care providers were interested in further training to provide optimal care to these patients.

Methods

An anonymous online cross-sectional survey was created by the research team and reviewed, modified, and approved by the Saskatchewan Trans Health Coalition, in keeping with the community expertise and degree of involvement in community-based participatory research.[26] The Saskatchewan Trans Health Coalition consists of people who are TGD, 2SLGBTQ+, service organization representatives, and health care providers, with some of the latter also being members of the research team. Saskatchewan Health Authority Research Ethics Board approval was obtained (REB-19-90). FMRs, practicing NPs and FPs across Saskatchewan were recruited through e-mail or social media through their respective professional organizations and the University of Saskatchewan family medicine residency program. The invitation to participate explained the aims of the study and contained the survey link. A detailed consent form was provided at the beginning of the online survey, and survey completion implied consent. The data collection occurred between August and October 2019. As an incentive for participation, respondents were given an option of entering a prize draw for one of five $50 gift cards.

The survey was created to assess barriers and facilitators to guideline implementation and working with transgender patients, using a knowledge-attitudes-behaviors framework.[24] Participant demographics (including age, gender, location of medical school training, and practice setting/rurality) were collected. Participants were asked to identify if they had any TGD, cultural safety, or medical-related training and if they had current or previous patients who are TGD in their practice. Since self-efficacy and motivation to learn/expand practice have been identified as barriers to implementing clinical guidelines,[24] comfort levels providing trans-related and nontrans-related medical care to patients who are TGD were rated on Likert scales. As environmental factors have been identified as being a barrier to behavioral change,[24] participants were asked about organizational training and physical environment supports (e.g., gender-neutral bathrooms and safe space signage). Cases were used to assess participants' knowledge around trans-related screening guidelines, medical management and laboratory monitoring for individuals who are transitioning, and referral requirements. Participant interest in future training for providing trans-related medical care to patients who are TGD and cultural safety training was also assessed.

Survey data were collected online using REDCap. Analyses included descriptive statistics (aggregate and by professional group) and comparisons between groups using analyses of variances (ANOVAs). Levene's test for equality of variances was conducted to test the ANOVA assumption of equality of variance. If this assumption was violated, a Brown–Forsythe test was run, which is robust to violations of the assumption of equality of variances. The significance level was set at an alpha of 0.05. All statistics were performed using SPSS version 22.

Results

A total of 188 individuals responded to the survey: 106 (56.4% of participants) FPs, 44 (23.4%) NPs, and 38 (20.2%) FMRs, for an overall response rate of 13.5%. Half of participants practiced outside urban settings (Fig. 1). Fifty-three (28.2%) participants reported their gender as male, 132 (70.2%) as female, 3 (1.6%) as "prefer not to say," and none selected other gender options. Participants reported a mean of 10.3 years (standard deviation 10.7 years) in their current practicing role. Twenty-nine (19.3%) of participants who weren't currently in residency training ($n=150$) reported having completed their postgraduate training outside Canada. Forty-eight (25.5%) participants reported connection to the 2SLGBTQ+ community, either through themselves or a friend/family member being part of the community.

When asked if they had received any medical training on trans-related health care, 56 (29.8%) answered yes, 7 (3.7%) were unsure, and the remaining 125 (66.5%) had no training. Fifty percent ($n=19$) of FMRs, 31.8% ($n=14$) of NPs, and 21.7% ($n=23$) of FPs reported receiving previous training. Training

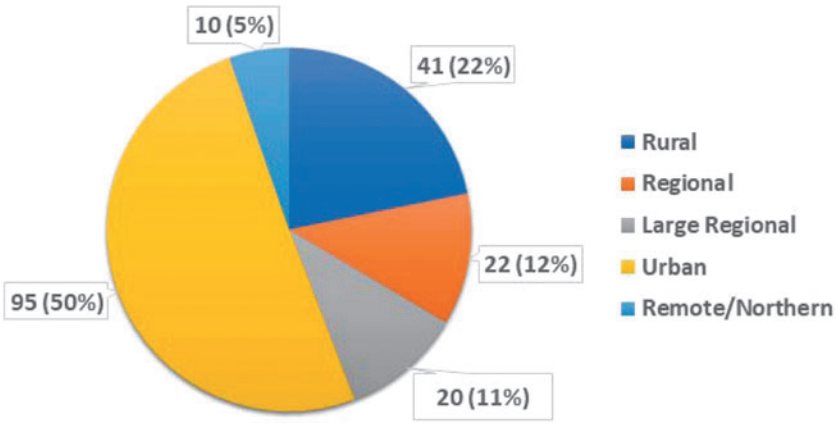

FIG. 1. Participants' practice setting. Population centers were defined by population: rural (<5000), regional (5000–25,000), large regional (25,000–100,000), urban (>100,000), and remote/northern.

was received in multiple formats, with lecture being the most common ($n=30$, 53.6%), followed by in-clinic training ($n=28$, 50%), self-directed reading of guidelines ($n=20$, 35.7%), conference sessions ($n=19$, 33.9%), and webinars ($n=7$, 12.5%). Forty percent ($n=75$) of participants reported previous cultural safety training.

Seventy-eight percent ($n=146$) reported having seen a patient who is TGD, with 50% ($n=73$) citing an ongoing relationship with that patient. The majority (82.9%, $n=121$) saw these patients for nontrans-related health care. Ninety-one percent ($n=133$) felt comfortable establishing rapport with the patient during their visit and 76% ($n=111$) felt comfortable addressing the patient's needs. When asked if they would be comfortable providing trans-related medical care at the time of the survey, only 30.3% ($n=57$) indicated they would be, compared with 95.8% ($n=180$) reporting they would be comfortable providing nontrans-related medical care to patients who are TGD.

One percent ($n=2$) of participants reported ethical, religious, or moral reservations about providing any medical care for patients who are TGD, whereas 9.6% ($n=18$) reported reservations about providing trans-related health care only.

Only 28.2% ($n=53$) of participants were aware of safe space signage for individuals who are 2SLGBTQ+ in their place of work. Seventeen percent ($n=32$) reported that their organization provides cultural safety training regarding working with patients who are 2SLGBTQ+.

Answers to questions regarding two trans-related cases varied. When asked if a trans man with a uterus required a Pap smear (would according to guidelines[25]), 6.4% ($n=12$) responded no and 17% ($n=32$) were unsure. Participants were asked to identify appropriate routine laboratory tests for a trans man on testosterone therapy. The correct masculinizing hormone therapy monitoring laboratories in accordance with Sherbourne guidelines[25] (including complete blood count, diabetes screen, liver function tests, testosterone level, and cholesterol panel) were chosen by a range of 67.6% ($n=127$) to 81.9% ($n=154$) of participants. Estradiol and prolactin were incorrectly chosen by 22.3% ($n=42$) and 17.6% ($n=33$) of participants, respectively. The vast majority (92%, $n=173$) of participants correctly identified from a cultural safety perspective that it was incorrect to continue using a patient's previous name and pronouns. When asked to identify common feminizing hormone therapy regimens, 37.2% ($n=70$) correctly identified estradiol and finasteride, and 56.4% ($n=106$) correctly identified estradiol and spironolactone. Only 30.9% ($n=58$) of participants responded correctly that feminizing hormones alone are not reliable as contraception.

Seventy-six percent ($n=142$) of participants reported that they would be interested in further training on addressing transition-specific medical needs for patients who are TGD and 67.1% ($n=126$) indicated interest in training on cultural safety with patients who are TGD. In-person conference training was the first choice for 39.9% ($n=75$), followed by telehealth webinars (23.9%, $n=45$), online forum with specialists (6.4%, $n=12$), conference call line (5.3%, $n=10$), and online course (4%, $n=8$).

Table 1. Reponses for Likert-Item Comfort and Interest in Further Training Questions for All Providers

	FMRs ($n=38$)	NPs ($n=44$)	Practicing FPs ($n=106$)	p
"At this moment, I would be comfortable providing transition-related medical care (e.g., hormone therapy, surgical referral) should a TGD patient present to me seeking it"	2.5 ± 1.0	2.6 ± 1.3	2.8 ± 1.2	0.290
"At this moment, I would be comfortable providing non-transition-related medical care (e.g., asthma, acute care, infections, diabetes care) to a TGD person"	4.5 ± 0.8	4.8 ± 0.6	4.7 ± 0.5	0.072[a]
"I have ethical, religious, or moral reservations about providing transition-related healthcare (e.g., hormone therapy) to TGD patients"	1.5 ± 0.9	1.61.2	1.7 ± 1.1	0.483
"I have ethical, religious, or moral reservations about providing any medical care (non-transition-related) for TGD patients"	1.2 ± 0.7	1.2 ± 0.6	1.2 ± 0.5	0.827
"I would be interested in further training on addressing transition-specific medical needs among TGD patients"	4.3 ± 0.9	4.1 ± 1.1	3.9 ± 1.1	0.160
"I would be interested in further training on cultural safety with TGD patients"	3.8 ± 1.1	4.1 ± 1.0	3.7 ± 1.0	0.189

Values represent mean ± standard deviation. Likert items ranged from 1 (strongly disagree) to 5 (strongly agree).
[a]Violated ANOVA assumption of equality of variance. p-Value from a Brown–Forsythe test.
ANOVA, analyses of variance; FMRs, family medicine residents; FPs, family physicians; NPs, nurse practitioners; TGD, transgender and gender diverse.

ANOVAs were conducted to compare the comfort of FMRs, NPs, and practicing FPs toward individuals who are TGD. No statistically significant differences between provider groups were observed (Table 1).

Discussion

Consistent with previous studies, the majority of practitioners who completed the survey had low levels of comfort with providing trans-related care to patients who are TGD. Knowledge gaps in clinical care and cultural safety were similarly identified. Unlike other studies, comfort providing nontrans-related care was also assessed, which was found to be generally high among participants. With less than a third of participants indicating previous training in trans-related health care, this disparity between comfort providing nontrans- and trans-related care can be attributed to lack of knowledge.

Many participants reported having seen patients who are TGD in their practice. Unlike the majority of other Canadian studies on this topic,[10,14,22] roughly half of respondents were from regional, rural, and remote locations, which indicates that individuals who are TGD seek care in a variety of locations. Currently, transition-related care in Canada is concentrated in large centers and this represents a barrier to care. Online training programs have been developed, but most are not widely available, which represents a barrier for rural health care providers. Individuals who are TGD who seek medical care for their gender-affirming goals rely on providers with the knowledge and skills to use appropriate assessment protocols. Our study indicated there would be uptake of education to address this and other gaps identified for FMRs, NPs, and FPs. Training is needed for those entering practice and in continuing education for practicing providers. Training must address unique medical needs of individuals who are TGD specifically, such as how to prescribe feminizing and masculinizing hormone therapy, and not simply provide diversity training for 2SLGBTQ+ issues. Strategies to provide education that is more inclusive and improves care have been identified,[16,17,19,27] but there is no consensus regarding which educational interventions should be used. Insight gained from this study on preferred delivery format could be used to increase uptake.

Our study is limited by its single geographical location (our province), its low response rate (13.5%), and potential self-report bias. Educational initiatives, both on cultural safety with patients who are TGD and on trans-related therapies, for primary care providers will be undertaken. A future study could compare the comfort and knowledge of practitioners before and after completion of this training in our rural Canadian context. The patient/community perspective would also be important, pre- and post-training, to assess if the initiatives are attaining the goal of culturally safe and appropriate care.

Conclusions

FPs, NPs, and FMRs in Saskatchewan lack comfort and knowledge about providing medical care to TGD patients, specifically trans-related care (including hormone therapy and trans-related surgical referrals). Interest in future training is high and future educational interventions could help address this gap.

Data Sharing Statement

Owing to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data are not available.

Acknowledgments

We thank (1) The Saskatchewan Trans Health Coalition for their participation in creating the survey; (2) The University of Saskatchewan Department of Family Medicine for funding this project through the Resident Research Fund; (3) The University of Saskatchewan Department of Family Medicine, Saskatchewan Medical Association, and Saskatchewan Registered Nurses' Association for distributing our survey; (4) The Saskatchewan Health Authority for its support through the Clinician Research Support program; and (5) The Saskatchewan Health Authority Library for literature review services.

Authors' Contributions

L.C. and K.M. reviewed the literature, participated in survey design, analyzed the data, and wrote the article. L.S. contributed to the project design and delivery, and the article. C.H. and G.R. helped design the survey and contributed to the article. E.B. contributed to survey design and the article. A.C. helped interpret the data and write the article. M.M. helped design the survey, analyzed the data, and critically reviewed the article. M.C. conceptualized the project, supervised the entire project, and contributed to the article.

Author Disclosure Statement

No competing financial interests exist.

Funding Information

This project received funding from the University of Saskatchewan's Department of Academic Family Medicine Resident Research Fund.

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Cite this article as: Christopherson L, McLaren K, Schramm L, Holinaty C, Ruddy G, Boughner E, Clay A, McCarron M, Clark M (2022) Assessment of knowledge, comfort, and skills working with transgender clients of Saskatchewan family physicians, family medicine residents, and nurse practitioners, *Transgender Health* 7:5, 468–472, DOI: 10.1089/trgh.2020.0181.

Abbreviations Used

ANOVAs = analyses of variances
FMRs = family medicine residents
FPs = family physicians
NPs = nurse practitioners
TGD = transgender and gender diverse